

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

es Patent Application of:	Docket No.:	2771-663
CHEN, Ing-Shin, et al.) Conf. No.:	1337
10/775,473) Date Filed:	February 9, 2004
7,193,187) Date Issued:	March 20, 2007
FEEDBACK CONTROL SYSTEM AND METHOD FOR MAINTAINING CONSTANT RESISTANCE OPERATION OF ELECTRICALLY HEATED ELEMENTS	Customer No.:))))))))	23448
)	Certificate
I hereby certify that I am mailing this document to the Commissioner for Patents on the date specified, in an envelope addressed to Commissioner for Patents, Attn: Certificate of Correction Branch, P.O. Box 1450, Alexandria, VA 22313, First Class Mailed under the provisions of 37 CFR 1.8. October 9, 2007 Date of Mailing		Certificate OCT 1 6 2007 of Correction
	CHEN, Ing-Shin, et al. 10/775,473 7,193,187 FEEDBACK CONTROL SYSTEM AND METHOD FOR MAINTAINING CONSTANT RESISTANCE OPERATION OF ELECTRICALLY HEATED ELEMENTS FIRST CLASS MAIL CERT Treby certify that I am mailing this document to ents on the date specified, in an envelope addre ents, Attn: Certificate of Correction Branch, P. 22313, First Class Mailed under the provision Pamela Rollings	CHEN, Ing-Shin, et al. 10/775,473 Date Filed: 7,193,187 FEEDBACK CONTROL SYSTEM AND METHOD FOR MAINTAINING CONSTANT RESISTANCE OPERATION OF ELECTRICALLY HEATED ELEMENTS FIRST CLASS MAIL CERTIFICATE reby certify that I am mailing this document to the Commissioner for ents on the date specified, in an envelope addressed to Commissioner for ents, Attn: Certificate of Correction Branch, P.O. Box 1450, Alexandria, 22313, First Class Mailed under the provisions of 37 CFR 1.8. Pamela Rollings October 9, 2007

SUBMISSION OF CERTIFICATE OF CORRECTION UNDER THE PROVISIONS OF 37 CFR § 1.322 AND 35 U.S.C. § 254 FOR U.S. PATENT NO. 7,193,187

Commissioner for Patents Attn: Certificate of Correction Branch P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Enclosed is a Certificate of Correction submitted under the provisions of 35 U.S.C. §254, to correct errors of the Patent and Trademark Office in the printing of the above-identified U.S.

Patent.

In addition to the errors of the Patent and Trademark Office, a review of the patent has revealed

the presence of errors attributable to applicants/patentees, which however are of a minor and self-

evident character, as listed below:

Column 7, line 32, "BRIEF DESCRIPT" should be -- BRIEF DESCRIPTION --.

Column 14, line 2, "provided as a input" should be -- provided as an input --.

While the foregoing errors attributable to applicants/patentees are not sufficiently serious in nature to warrant the filing of Certificate of Correction under 37 CFR § 1.322, applicants/patentees nonetheless wish to bring same to the attention of the Patent and Trademark

Office for inclusion in the prosecution record of the above-identified patent.

Respectfully submitted,

Steven J. Hultquist

Reg. No. 28,021

Attorney for Applicants

INTELLECTUAL PROPERTY/ TECHNOLOGY LAW Phone: (919) 419-9350

Fax: (919) 419-9354 Attorney File No.: 2771-663

Enclosures:

Certificate of Correction [2 pages]

The USPTO is hereby authorized to charge any deficiency or credit any overpayment of fees properly payable for this document to Deposit Account No. 08-3284

UNITED STATES PATENT AND TRADEMARK OFFICE **CERTIFICATE OF CORRECTION**

Page 1 of 2

PATENT NO.

: 7,193,187

APPLICATION NO.: 10/775,473

ISSUE DATE

: March 20, 2007

INVENTOR(S)

: CHEN, Ing-Shin, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Cover page, Item (54), Inventors, add -- Richard Kramer, Sharon, MA (US) --

Column 3, line 20: " α_p " should be $-\alpha_q$ -.

Column 4, line 18: " α_p " should be $-\alpha_p$ -

Column 6, line 1: " α_p " should be $-\alpha_\rho$ -.

Column 6, line 59: " α_p " should be $-\alpha_\rho$ -.

Column 8, line 14: " $R=R_0\cdot\left[1+\alpha_{_D}\left(T-T_0\right)\right]$ " should be --

$$R = R_0 \cdot \left| 1 + \alpha_o (T - T_0) \right| -$$

Column 8, line 17: " α_p " should be $-\alpha_0$ --.

Column 9, line 8: " $T_c = T_a + \eta W = T_a + \eta \cdot I_c^2 R_c = T_a + \eta \cdot I_c^2 R_0 \cdot [1 + \alpha_n (T_c - T_0)]$ " should be --

$$T_c = T_a + \eta W = T_a + \eta \cdot I_c^2 R_c = T_a + \eta \cdot I_c^2 R_0 \cdot [1 + \alpha_\rho (T_c - T_0)] - 1$$

Column 9, line 22: " $\varepsilon = \alpha_n \eta I^2 R_0$ " should be -- $\varepsilon = \alpha_n \eta I^2 R_0$ ---

Column 9, line 64: " $R \approx R_0 \cdot \left\{1 + \alpha_n \left[\left(T_a + \eta \cdot W\right) - T_0 \right] \right\}$ " should be –

$$R \approx R_0 \cdot \{1 + \alpha_o [(T_a + \eta \cdot W) - T_o]\}$$
 -

Column 10, lines 11-12: " $R_s = R_0 \cdot \{1 + \alpha_\rho [(T_{a,s} + \eta_s \cdot W_s) - T_0]\} \approx R_0 \cdot \{1 + \alpha_\rho [(T_a + \eta \cdot W_s) - T_0]\}$ "

should be
$$-R_s = R_0 \cdot \{1 + \alpha_\rho \left[\left(T_{a,s} + \eta_s \cdot W_s \right) - T_0 \right] \} \approx R_0 \cdot \{1 + \alpha_\rho \left[\left(T_a + \eta \cdot W_s \right) - T_0 \right] \} - 1$$

Column 10, line 32: " α_p " should be $-\alpha_\rho$ -.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Steven J. Hultquist Intellectual Property/Technology Law P.O. Box 14329 Research Triangle Park NC 27709

Burden Hour Statement: This form is estimated to take 1.0 hour to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 2

PATENT NO.

: 7,193,187

APPLICATION NO.: 10/775,473

ISSUE DATE

: March 20, 2007

INVENTOR(S)

: CHEN, Ing-Shin, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown

Column 11, line 23: "
$$R_s \approx R_0 \cdot \left\{1 + \alpha_p \left[\left(T_a + \eta \cdot W_s\right) - T_0 \right] \right\} = R_a + \alpha_p \eta \cdot R_0 \cdot W_s$$
" should be --
$$R_s \approx R_0 \cdot \left\{1 + \alpha_p \left[\left(T_a + \eta \cdot W_s\right) - T_0 \right] \right\} = R_a + \alpha_p \eta \cdot R_0 \cdot W_s - R_0 \cdot W$$

Column 12, line 51: "can be ed as" should be -- can be determined as --.

Column 13, line 26: " $I^{I}(R_s-R) \ll \Delta W$ " should be $-I^{I}(R_s-R) \ll \Delta W$ -.

Column 14, line 2, "provided as a input"

Column 18, lines 3-4 (claim 14): "
$$\Delta W = 2 \cdot \frac{m}{lpha_{
ho} imes t imes R_0} \cdot \left[R_s - R\right]$$
 " should be —

$$\Delta W = \frac{m}{\alpha_0 \times t \times R_0} \cdot [R_s + R(0) - 2R] -$$

Column 18, line 65 (claim 18): " α_p " should be $-\alpha_p$ -.

Column 19, line 55 (claim 20): " α_p " should be -- α_ρ --.

Column 20, line 22 (claim 21): " α_p " should be $-\alpha_p$ -.

Column 20, line 65 (claim 22): " α_p " should be $-\alpha_q$ -.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Steven J. Hultquist Intellectual Property/Technology Law P.O. Box 14329 Research Triangle Park NC 27709